

Cicindelid Collecting in Texas

By Barry D. Valentine  
Ithaca, N.Y.

This past summer, the author had the opportunity to collect rather extensively in the state of Texas. Seventeen species and twenty-four varieties of Cicindelids were taken during this collecting trip. A large open pasture located six and one-half miles west of Fort Davis in the Davis Mountains proved to be one of the most interesting collecting spots for Cicindelids. The following is an account of some of the species taken there.

One of the most interesting species collected was Cicindela obsoleta, which is the largest species of Cicindelid in the United States. This species is between seventeen and twenty-one millimeters long and very variable in color. Typical obsoleta is dull black and immaculate. Variety prasina LeC. is bright green and also immaculate. Variety santaclarae Bat. is also green but varies from a single submarginal spot to a complete set of markings. As a rule, the brighter the green, the more complete the markings. Variety anita Dow is black with incomplete markings and variety vulturina LeC. apparently combines most of the maculate forms but is appreciably larger. Actually, this hair-splitting of color characters is valueless because intermediate forms occur in each case. There were observed maculate, immaculate, green, brown and black forms in various combinations in copula. A series of forty specimens were collected in this pasture. It had a mud hole in one corner and only five obsoleta were on the mud flats while all the others were running around in the arid pasture several hundred yards from the nearest moisture.

This species is fast, alert and very hard to catch. They prefer open ground with short sparse vegetation and are most active late in the afternoon when the sun loses some of its intensity. They have the habit of resting in the shade of a bit of grass or small stone where they are impossible to see. The best system for finding them is to walk back and fourth across the field waving a net from side to side. Using this system, the only difficulty is to distinguish the flying obsoleta from the thousands of grasshoppers and then keep track of them until they land. This would be a simple matter for most tiger beetles, but obsoleta flies so long that it is often lost in the distance.

Cicindela horni Schp. was one of the less seldom seen tiger beetles which inhabited the same range as obsoleta. It took twelve days of collecting before the first specimen was found, and this was quite by accident. While looking for a black widow spider under a piece of dried cow manure, both the spider and a jet black Cicindela were found. During the next few days six more were collected, two being beneath dried manure and four running over the ground during the late afternoon. The easiest method of recognizing these beetles is by the way they act. Instead of flying when disturbed, they duck and try to run off in the grass. A net is useless; they are far easier caught by hand. Strangely enough, even when there is no place for them to hide, they invariably run a short distance before they take wing. They are almost impossible to keep in sight when in the air, as they fly very fast. If they disappear from view while in the air, they may be again found by walking about five paces in the general direction the insect went, then standing quietly for a minute or so. Horni, like obsoleta, remains quiet for some time after landing. When it senses the danger is over, it begins to move. When it does

this, the shiny black color is easy to see against the dry ground.

A third species which shunned the mud flat area and preferred the pasture was Cicindela pulchra Say. This beautiful beetle is bright purplish-red and emerald green. It is about fifteen millimeters long. The species is relatively easy to approach, but if the first try is missed, there is seldom the opportunity for a second. The first specimens seen were a mating pair which separated when approached. A swing with the net captured the male, but the female was so fast she was not even observed taking wing. Pulchra appears to be abroad at all times of the day, but since only seven specimens were observed in two weeks of intensive collecting, this is said with reservation.

Four other species of Cicindelidae were caught in this same pasture, but these were on the mud flats or in the immediate vicinity. These species were: C. punctulata Oliv., lemniscata LeC., sedecimpunctata Klug and nigrocoerulea LeC. Punctulata was quite common on the mud, most of the specimens being intergrades between typical punctulata and variety micans Say; the majority of specimens being dull green with some running into dull bronze. There was also one bright blue specimen with a complete set of dots. This was probably Bates' variety chihuahuae.

Cicindela lemniscata LeC. was not as common at Fort Davis as it was in other adjacent areas. It prefers dry sandy spots close to moisture and can usually be found within a yard or two of the line of demarcation between wet and dry ground. It also comes to light.

C. sedecimpunctata Klug was common on the mud flats, rare on the adjacent dry ground.

Cicindela nigrocoerulea LeC. was the commonest tiger beetle ever observed by the writer. There were thousands of them crowded together on the mud flats and more on the surrounding dry ground. The great majority of the hundred collected were of the green form named robusta by Leng in his revision. The typical blue or blackish nigrocoerulea were relatively rare, occurring about one blue to every two or three hundred green. As in obsoleta and punctulata the blue and black forms were much harder to catch than the green, many specimens taking wing as soon as one moved in their direction.

The other ten species observed and collected on this trip will be discussed in a later issue.